


Please type a plus sign (+) inside this box →



PTO/SB/08A (08-00)
Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO		Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Application Number	To Be Assigned
		Filing Date	Herewith
		First Named Inventor	Keirstead, et al.
		Group Art Unit	To Be Assigned 1649
		Examiner Name	To Be Assigned
Sheet 1 of 4	Attorney Docket Number	IRVN-009CON	

U.S. PATENT DOCUMENTS						
Examin er Initials ¹	Cite No. ¹	U.S. Patent Documents		Name of Patentee or Applicant of Cited Documents	Date of Publication of Cited Document MM-DD-YYYY	Pages, columns, lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
DK		5,654,183		Anderson, et al.	08-05-1997	
		5,753,506		Johe	05-19-1998	
		5,830,621		Suzuki, et al.	11-03-1998	
		5,830,651		Cauley, et al.	11-03-1998	
		5,849,553		Anderson, et al.	12-15-1998	
		5,851,832		Weiss, et al.	12-22-1998	
		5,968,829		Carpenter	10-19-1999	
		6,090,622		Gearhart, et al.	07-18-2000	
		6,200,806		Thomson	03-13-2001	
		6,235,537		North, et al.	05-22-2001	
		6,238,922		Uchida	05-29-2001	
		6,245,564		Goldman, et al.	06-12-2001	

FOREIGN PATENT DOCUMENTS								
Examiner Initials ¹	Cite No. ¹	Foreign Patent Documents			Name of Patentee or Applicant of Cited Documents	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ³
		Office ²	Number ⁴	Kind Code ⁵ (if known)				
DK			2,253,078		Steeves	10-28-1998		
↓			WO 97/07200		Barres	02-27-1997		
			WO 97/32608		McKinnon	02-28-1997		
			WO 98/50526		Rao, et al.	11-12-1998		
			WO 99/01159		Rao, et al.	01-14-1999		
			WO 99/20741		Bodnar, et al.	04-29-1999		
			WO 00/23571		Goldman, et al.	04-27-2000		
			WO 01/28342		PCT	04-26-2001		
			WO 01/51610		Long, et al.	07-19-2001		
			WO 01/68815		Pera, et al.	09-20-2001		
↓			WO 01/88104		Carpenter	11-22-2001		
Examiner Signature	/Daniel Kolker/ (06/15/2006)					Date Considered	06/15/2006	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Unique citation designation number. ²Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Please type a plus sign (+) inside this box →



PTO/SB/08A (08-00)

Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i>		Complete If Known	
		Application Number	To Be Assigned
		Filing Date	Herewith
		First Named Inventor	Kelstead, et al.
		Group Art Unit	To Be Assigned
		Examiner Name	To Be Assigned
Sheet 2 of 4	Attorney Docket Number	IRVN-009CON	

DK		WO 01/98463		Pera	12-27-2001	
----	--	-------------	--	------	------------	--

OTHER PRIOR ART—NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
DK		ARSENIJEVIC, et al. "Isolation of multipotent neural precursors residing in the cortex of the adult human brain", <i>Exp. Neuro.</i> , (2001) Vol. 170: 48-62.	
		BAIN, et al. "Neuron like cells derived in culture from P40 embryonal carcinoma and embryonic stem cells", <i>Article</i>, pp.1-13.	
		NO JOURNAL, NO DATE	
DK		BARRES, et al. "A novel role from thyroid hormone, glucocorticoids and retinoic acid in timing oligodendrocyte development", <i>Development</i> , (1994) Vol. 120: 1097-1108.	
		BLAKEMORE, et al. "The origin of remyelinating cells in the central nervous system", <i>J. Neuroimmunology</i> , (1999) Vol. 98: 69-76.	
		BOTTENSTIEN. "Growth requirements in vitro of oligodendrocyte cell lines and neonatal rat brain oligodendrocytes", <i>Proc. Natl. Acad. Sci. USA</i> , (1986) Vol. 83(6): 1955-1959.	
		BRÜSTLE, et al. "In vitro-generated neural precursors participate in mammalian brain development", <i>Proc. Natl. Acad. Sci. USA</i> , (1997) Vol. 94: 14809-14814.	
		BRÜSTLE, et al. "Embryonic stem cell-derived glial precursors: A source of myelinating transplants", <i>Science</i> , (1999) Vol. 285: 754-756.	
		CARPENTER, et al. "Dopaminergic neurons and proliferation-competent precursor cells for treating Parkinson's disease", <i>Int'l Patent Application PCT/US02/19477</i> .	
		CHANDROSS, et al. "Tracking oligodendrocytes during development and regeneration", <i>Microsci. Res. Tech.</i> , (2001) Vol. 52(6): 766-777.	
		CHEN, et al. "Gene transfer and expression in oligodendrocytes under the control of myelin basic protein transcriptional control region mediated by adeno-associated virus", <i>Gene Ther.</i> , (1998) Vol. 5(1): 50-58.	
		ECCLESTON, et al. "The differentiation of oligodendrocytes in a serum-free hormone-supplemented medium", <i>Brain Res.</i> , (1984) Vol. 318(1): 1-9.	
		FRAICHARD, et al. "In vitro differentiation of embryonic stem cells into glial cells and functional neurons", <i>J. Cell Sci.</i> , (1995) Vol. 108: 3181-3188.	
		GOTTLIEB, et al. "An in vitro pathway from embryonic stem cells to neurons and glia", <i>Cells Tissues Organs</i> , (1999) Vol. 165(3-4): 165-172.	
		GU, et al. "Selenium is required for normal upregulation of myelin genes in differentiating oligodendrocytes", <i>J. Neurosci. Res.</i> , (1997) Vol. 47(6): 626-635.	

Examiner Signature	/Daniel Kolker/ (06/15/2006)	Date Considered	06/15/2006
--------------------	------------------------------	-----------------	------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Unique citation designation number. ²Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Please type a plus sign (+) inside this box →



PTO/SB/08A (08-00)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO		Complete if Known	
		Application Number	To Be Assigned
INFORMATION DISCLOSURE STATEMENT BY APPLICANT		Filing Date	Herewith
		First Named Inventor	Keirstead, et al.
		Group Art Unit	To Be Assigned 1649
		Examiner Name	To Be Assigned
(use as many sheets as necessary)		Attorney Docket Number	IRVN-009CON
Sheet	3 of 4		

DK		GUAN, et al. "Embryonic stem cell-derived neurogenesis. Retinoic acid induction and lineage selection of neuronal cells", <i>Cell Tissue Res.</i> , (2001) Vol. 305(2): 171-176.	
		HINKS, et al. "Depletion of endogenous oligodendrocyte progenitors rather than increased availability of survival factors is a likely explanation for enhanced survival of transplanted oligodendrocyte progenitors in X-irradiated compared to normal CNS", <i>Neuropath. Appl. Neurobio.</i> , (2001) Vol. 27: 59-67.	
		HOLLAND. "Gliomagenesis: Genetic alterations and mouse models", <i>Nat. Rev. Genet.</i> , (2001) Vol. 2(2): 120-129.	
		KEIRSTEAD, et al. "In vivo immunological suppression of spinal cord myelin development", <i>Brain Res. Bulletin</i> , (1997) Vol. 44(6): 727-734.	
		KEIRSTEAD, et al. "Identification of post-mitotic oligodendrocytes incapable of remyelination within the demyelinated adult spinal cord", <i>J. Neuropath. Exp. Neurology</i> , (1997) Vol. 56(11): 1191-1201.	
		KEIRSTEAD, et al. "A quantifiable model of axonal regeneration in the demyelinated adult rat spinal cord", <i>Exp. Neurol.</i> , (1998) Vol. 151: 303-313.	
		KEIRSTEAD, et al. "Response of the oligodendrocyte progenitor cell population (defined by NG2 labelling) to demyelination of the adult spinal cord", <i>GLIA</i> , (1998) Vol. 22: 161-170.	
		KEIRSTEAD, et al. "The role of oligodendrocytes and oligodendrocyte progenitors in CNS remyelination", <i>Adv. Exp. Med. Biol.</i> , (1999) Vol. 468: 183-197.	
		KEIRSTEAD, et al. "Polysialylated neural cell adhesion molecule-positive CNS precursors generate both oligodendrocytes and schwann cells to remyelinate the CNS after transplantation", <i>J. Neurosci.</i> , (1999) Vol. 19(17): 7529-7536.	
		KEIRSTEAD. "Stem cell transplantation into the central nervous system and the control of differentiation", <i>J. Neurosci. Res.</i> , (2001) Vol. 63: 233-236.	
		KORNBLUM, et al. "Molecular markers in CNS stem cell research: Hitting a moving target", <i>Nature Reviews</i> , (2001) Vol. 2: 843-846.	
		LEE, et al. "Efficient generation of midbrain and hindbrain neurons from mouse embryonic stem cells", <i>Nature Biotech.</i> , (2000) Vol. 18: 675-678.	
		LI, et al. "Generation of purified neural precursors from embryonic stem cells by lineage selection", <i>Curr. Bio.</i> , (1998) Vol. 8: 971-974.	
		LIU, et al. "Embryonic stem cells differentiate into oligodendrocytes and myelinate in culture and after spinal cord transplantation", <i>Proc. Natl. Acad. Sci. USA</i> , (2000) Vol. 97(11): 6126-6131.	
		MCDONALD, et al. "Transplanted embryonic stem cells survive, differentiate and promote recovery in injured rat spinal cord", <i>Nature Med.</i> , (1999) Vol. 5(12): 1410-1412.	
		MUJTABA, et al. "Lineage-restricted neural precursors can be isolated from both the mouse neural tube and cultured ES cells", <i>Dev. Bio.</i> , (1999) Vol. 214: 113-127.	

Examiner Signature	/Daniel Kolker/ (06/15/2006)	Date Considered	06/15/2006
--------------------	------------------------------	-----------------	------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

*Unique citation designation number. *Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Please type a plus sign (+) inside this box →



PTO/SB/08A (08-00)

Approved for use through 10/31/2002. OMB 0851-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO		Complete if Known	
		Application Number	To Be Assigned
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Filing Date	Herewith
		First Named Inventor	Kelstead, et al.
		Group Art Unit	To Be Assigned 1649
		Examiner Name	To Be Assigned
Sheet	4	of	4
		Attorney Docket Number	IRVN-009CON

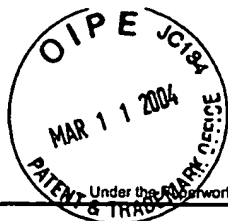
DK		O'SHEA, "Neuronal differentiation of mouse embryonic stem cells: Lineage selection and forced differentiation paradigms", <i>Blood Cells, Molecules and Diseases</i> , (2001) Vol. 27(3): 705-712.	
		OSTENFELD, et al. "Regional specification of rodent and human neurospheres", <i>Brain Res. Dev. Brain Res.</i> , (2002) Vol. 134(1-2): 43-55.	
		PARDO, et al. "Differentiation of rat striatal embryonic stem cells in vitro: Monolayer culture vs. three-dimensional coculture with differentiated brain cells", <i>J. Neurosci. Res.</i> , (2000) Vol. 59(4): 504-512.	
		PARK, et al. "Transplantation of neural progenitor and stem cells: Developmental insights may suggest new therapies for spinal cord and other CNS dysfunction", <i>J. Neurotrauma</i> , (1999) Vol. 16(8): 675-687.	
		REUBINOFF, et al. "Neural progenitors from human embryonic stem cells", <i>Nat. Biotechnol.</i> , (2001) Vol. 19(12): 1134-1140.	
		SCOLDING, et al. "Oligodendrocyte progenitors are present in the normal adult human CNS and in the lesions of multiple sclerosis", <i>Brain</i> , (1998) Vol. 121: 2221-2228.	
		SCOLDING, et al. "Identification of A2B5-positive putative oligodendrocyte progenitor cells and A2B5-positive astrocytes in adult human white matter", <i>Neuroscience</i> , (1999) Vol. 89(1): 1-4.	
		SVENDSEN, et al. "A new method for the rapid and long term growth of human neural precursor cells", <i>J. Neurosci. Meth.</i> , (1998) Vol. 85: 141-152.	
		THOMSON, et al. "Neural differentiation of rhesus embryonic stem cells", <i>APMIS</i> , (1998) Vol. 106: 149-157.	
		THOMSON, et al. "Embryonic Stem Cell Lines Derived From Human Blastocysts" <i>Science</i> , (1998) Vol. 282 (5391): 1145.	
		XU, et al. "Feeder-free growth of undifferentiated human embryonic stem cells", <i>Biotechnol.</i> , (2001) Vol. 19: 971-974.	
		ZHANG, et al. "In vitro differentiation of transplantable neural precursors from human embryonic stem cells", <i>Nature Biotech.</i> , (2001) Vol. 19: 1129-1133.	

Examiner Signature	/Daniel Kolker/ (06/15/2006)	Date Considered	06/15/2006
--------------------	------------------------------	-----------------	------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Unique citation designation number. ²Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.



PTO/SB/08a (05-03)
Approved for use through 04/30/2003. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Substitute for form 1449A/PTO				Complete if Known	
				Application Number	10/661,105
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Filing Date	September 12, 2003
				First Named Inventor	KEIRSTEAD, HANS S.
				Art Unit	1651
				Examiner Name	
				Attorney Docket Number	IRVN-009CON
Sheet	1	of	2		
U.S. PATENT DOCUMENTS					
Examiner Initials [*]	Cite No. ¹	U.S. Patent Documents Number Kind Code ² (if known)	Name of Patentee or Applicant of Cited Documents	Date of Publication of Cited Document MM-DD-YYYY	Pages, columns, lines, Where Relevant Passages or Relevant Figures Appear
DK		5,766,948	Gage, et al.	06-16-1998	
↓		5,928,947	Anderson, et al.	07-27-1999	
		6,040,180	Johe	03-21-2000	

FOREIGN PATENT DOCUMENTS						
Examiner Initials [*]	Cite No. ¹	Foreign Patent Document Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶

OTHER PRIOR ART—NON PATENT LITERATURE DOCUMENTS			
Examiner Initials [*]	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
DK		AKIYAMA, et al. "Remyelination of the rat spinal cord by transplantation of indentified bone marrow stromal cells", <i>J. Neurosci.</i> , (2002) Vol. 22(15): 6623-6630.	
↓		BAIN, et al. "Embryonic stem cells express neuronal properties <i>in vitro</i> ", <i>Developmental Biology</i> , (1995) Vol. 168: 342-357.	
		BARRES, et al. "Cell death and control of cell survival in the oligodendrocyte lineage", <i>Cell</i> , (1992) Vol. 70(1): 31-46.	
		BILLON, et al. "Normal timing of oligodendrocyte development from genetically engineered, lineage-selectable mouse ES cells", <i>J. Cell Sci.</i> , (2002) Vol. 115: 3657-3665.	
		BJÖRKLUND, et al. "Embryonic stem cells develop into functional dopaminergic neurons after transplantation in a Parkinson rat model", <i>PNAS</i> 2002. Vol. 99(4): 2344-2349	
		CARPENTER, et al. "Enrichment of neurons and neural precursors from human embryonic stem cells", <i>Exp. Neurology</i> , (2001) Vol. 172: 383-397.	
		FREED. "Will embryonic stem cells be a useful source of dopamine neurons for transplant into patients with Parkinson's Disease?", <i>PNAS</i> , (2002) Vol. 99: 1755-1757.	
		HAJIHOSEINI, et al. "Origin of oligodendrocytes within the human spinal cord", <i>J. Neurosci.</i> , (1996) Vol. 16(24): 7981-7994.	
↓		HOLTKAMP, et al. "Chronic inflammatory demyelinating polyradiculoneuropathy with histologically proven optic neuritis", <i>Acta Neuropathol.</i> , (2001) Vol. 101: 529-531.	
		KALMAN, et al. "Spectrum and classification of inflammatory demyelinating diseases of the central nervous system", <i>Curr. Neurology and Neurosci. Reports</i> , (2001) Vol 1: 249-256.	

Examiner Signature	/Daniel Kolker/ (06/15/2006)	Date Considered	06/15/2006
--------------------	------------------------------	-----------------	------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 1 Applicant's unique citation designation number (optional). 2 See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. 3 Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). 4 For Japanese patent documents, the indication of the reign of the Emperor must precede the serial number of the patent document. 5 Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. 6 Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



PTO/SB/08a (05-03)
Approved for use through 04/30/2003. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i>		Complete if Known			
		Application Number	10/661.105		
		Filing Date	September 12, 2003		
		First Named Inventor	KEIRSTEAD, HANS S.		
		Art Unit	1651		
		Examiner Name			
Sheet	2	of	2	Attorney Docket Number	IRVN-009CON

DK		KEIRSTEAD, et al. "Enhanced axonal regeneration following combined demyelination plus schwann cell transplantation therapy in the injured adult spinal cord", <i>Exp. Neurol.</i> , (1999) Vol. 159(1): 225-236.	
		KUO, et al. "Differentiation of monkey embryonic stem cells into neural lineages", <i>Biol. Reprod.</i> , (2002) 68:1727-1735	
		LIE, et al. "The adult substantia nigra contains progenitor cells with neurogenic potential", <i>J. Neurosci.</i> , (2002) Vol. 22(15): 6639-6649.	
		MCDONALD, et al. "Repairing the damaged spinal cord", <i>Scientific American</i> , (1999) Vol. 281(3): 64-73.	
		XIAN, et al. "A subset of ES-cell-derived neural cells marked by gene targeting", <i>Stem Cells</i> , (2003) Vol. 21: 41-49.	
		ZHANG, et al. "Adult brain retains the potential to generate oligodendroglial progenitors with extensive myelination capacity", <i>Proc. Natl. Acad. Sci. USA</i> , (1999) Vol. 96: 4089-4094.	

Examiner Signature	/Daniel Kolker/ (06/15/2006)	Date Considered	06/15/2006
-----------------------	------------------------------	--------------------	------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 1 Applicant's unique citation designation number (optional). 2 See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. 3 Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). 4 For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. 5 Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. 6 Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

PTO/SB/08a (08-03)

Approved for use through 07/31/2008. OMB 0851-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO		Complete If Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Application Number	10/881,105
		Filing Date	AUGUST 12, 2003
		First Named Inventor	HANS KEIRSTEAD
		Art Unit	1661 1649
		Examiner Name	ROBERT HAYES
Sheet 1 of 1	Attorney Docket Number	IRVN-008CON	

U.S. PATENT DOCUMENTS					
Examiner Initials ¹	Cite No. ¹	Document Number Number-Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
DK		US 6,887,708	05-03-05	Zhang et al.	

FOREIGN PATENT DOCUMENTS						
Examiner Initials ¹	Cite No. ¹	Foreign Patent Document Country Code ² -Number ³ -Kind Code ⁴ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ²

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials ¹	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²

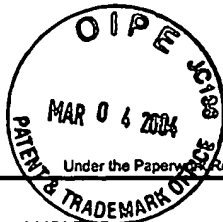
Examiner Signature	/Daniel Kolker/ (06/15/2006)	Date Considered	06/15/2006
--------------------	------------------------------	-----------------	------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 809. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Applicant's unique citation designation number (optional). ²Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

BEST AVAILABLE COPY



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i>		Complete if Known	
		Application Number	10/661,105
		Filing Date	September 12, 2003
		First Named Inventor	KEIRSTEAD, HANS S.
		Art Unit	1651-1649
Examiner Name			
Sheet 1 of 1	Attorney Docket Number	IRVN-009CON	

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Document Number Number-Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
DK		2002/019046	02-14-2002	M.K. Carpenter	

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	Foreign Patent Document Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
DK		WO 01/088104	11-22-2001	Geron Corporation		
DK		WO 01/028342	04-26-2001	Washington University		

OTHER PRIOR ART—NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
DK		Blakemore W. F. et al., "The Origin of Remyelinating Cells in the Central Nervous System." Journal of Neuroimmunology, July 1, 1999, Vol. 98, No. 1, pages 69-76	
DK		Nistor, G.I. et al., "Induction High Purity Oligodendrocyte Cultures from Human Embryonic Stem Cells." Biosciences Information Services, Philadelphia, PA US; 2002, Vol. 2002, pages Abstract No.: 726.16	
DK		Zhang, S. C. et al., "In Vitro Differentiation of Transplantable Neural Precursors form Human Embryonic Stem Cells." Nature Biotechnology December 2001, pages 1129-1133	

Examiner Signature	/Daniel Kolker/ (06/15/2006)	Date Considered	06/15/2006
--------------------	------------------------------	-----------------	------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.